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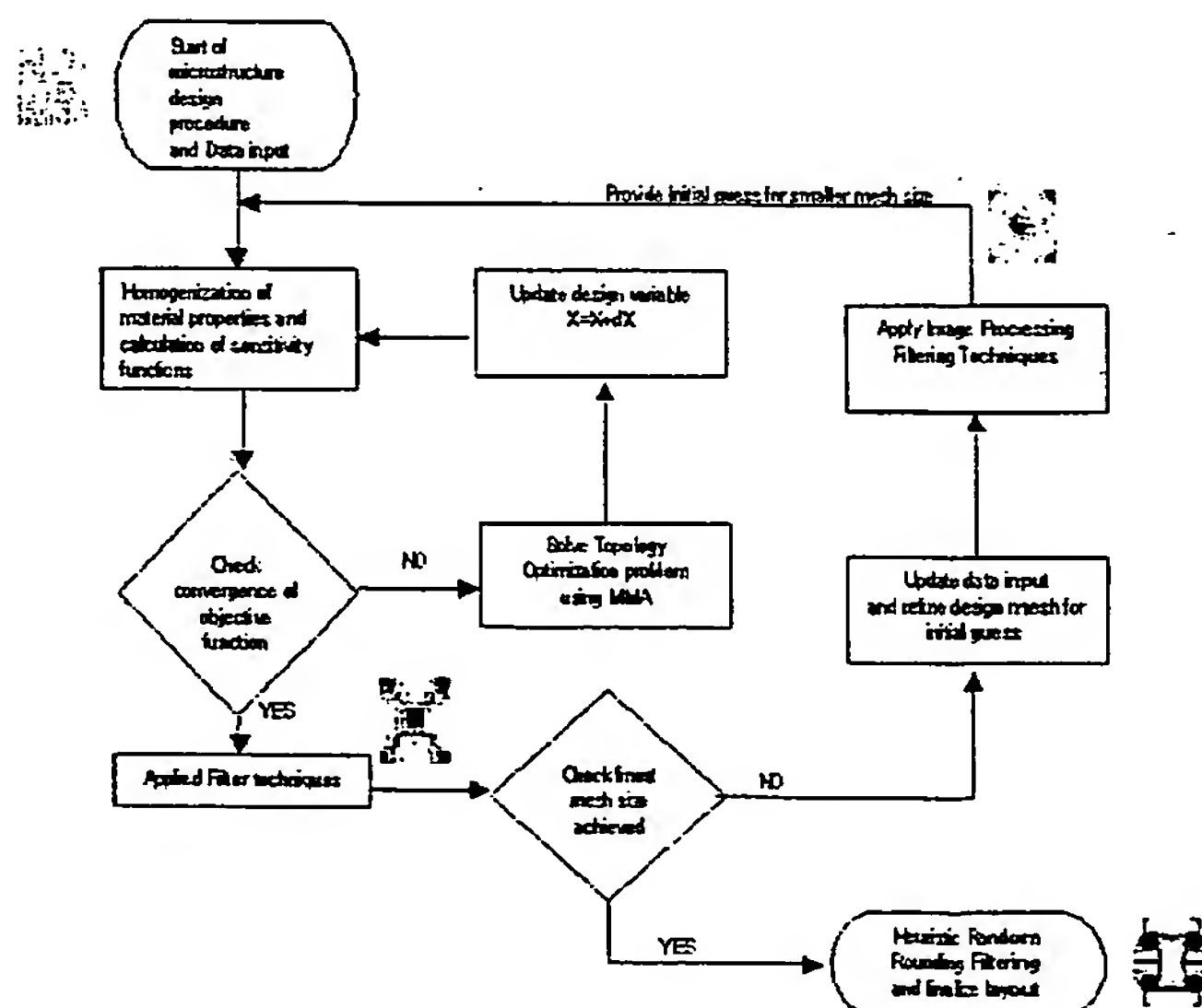
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(54) Title: **BIODEGRADABLE/BIORESORBABLE TISSUE AUGMENTATION/RECONSTRUCTION DEVICE**



(57) Abstract: A method of manufacturing biodegradable/bioresorbable tissue augmentation/reconstruction devices by defining material density distributions at selected time points during a material degradation lifecycle. These different density distributions are then superposed using general linear and/or nonlinear functions that could include both time and degraded base stiffness weighting factors. The material density distribution may be created using topology optimization, image-based design or computed aided design methods to create a degradable device that retains sufficient physical properties (ie modulus, strength, electrical conductivity, thermal conductivity) through the material degradation lifecycle process. Thus, any bulk degrading material can be designed using this process for any tissue augmentation/reconstruction application.

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